

Work Order ID 62633

Tuesday, October 05, 2010 1:01:48 PM



Page 1

Item ID: D206-667-203TRN

Accept



Setup Start



Revision ID:

Item Name: Crosstube Turning Detail

Stop



Start Date: 10/5/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 10/19/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date: 10-10-05 Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr	Revision Nbr
D206-667-243	Rev C

100



MORI SEIKI CNC LATHE LARGE

0.00

1 0

Mori Seiki

Mori Seiki CNC Lathe Large

Memo

0.00

1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA089
2-Turn first side as per Folio FA089
3-File down transition lines smooth.

110



QC1- Inspect dimensions to dimension sheet

0.00

1 0

QC

Quality Control

120



MORI SEIKI CNC LATHE LARGE

0.00

1 0

Mori Seiki

Mori Seiki CNC Lathe Large

Memo

0.00

1-Turn second side as per Folio FA089
2-File down transition lines smooth.
3-Remove sand and plugs
4-Scrib part# and batch #

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Customer:

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



QC

Quality Control

QC1- Inspect dimensions to dimension sheet

0.00

B-A 10/10/12

1

Ø

140



QC

Quality Control

QC8- Inspect parts - second check

0.00

S101013

④

150



HandFXtube

Hand Finishing Crosstubes

Crosstubes Chemical Conversion

0.00

SAD
10-10-13

⑥

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Start



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Cust Item ID:

Required Date: 10/19/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC

Quality Control

QC3- Inspect Part Finish

0.00

7 M/L

6/18/14

1X

0.00

170



Packaging

Packaging

0.00

E2

10-10-14



Packaging

Memo

0.00

Identify and Stock in kanban rack Location: 4/6

180



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10/10/14 JJ

MF

10-10-14

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Picklist Print

Tuesday, October 05, 2010 1:01:52 PM

Page 1

Work Order ID: 62633



Parent Item: D206-667-203TRN



Parent Item Name: Crosstube Turning Detail

Start Date: 10/5/2010

Required Date: 10/19/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 08-03-06 new issue DD verified by:ec
IPP Rev B 08.04.02 Removed polish EC verified by: DD
IPP Rev C 09.01.06 ECN 08-562 EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6004-115 		Manufactured	No			100	Each	54.0000	1	1			

Crosstube Material

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	54	
34685	17	
34774	2	
38336	35	

10/5/10/08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	62633
Description: Crosstube Assembly		Part Number:	D206-667-243
Inspection Dwg: D206-667-243	Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.490	+0.005/-0.000	2.491	✓	Micro	ML-03
	2.018	+0.005/-0.000	2.020	—	vern	ML-7
	2.079	+0.005/-0.000	2.084	—	Micro	ML-03
	2.145	+0.005/-0.000	2.150	—	Micro	ML-03
	2.209	+0.005/-0.000	2.214	—	Micro	ML-03
	2.287	+0.005/-0.000	2.291	—	Micro	ML-03
	2.363	+0.005/-0.000	2.363	—	Micro	ML-03
	2.433	+0.005/-0.000	2.437	—	Micro	ML-03
	0.200	+/-0.010	0.208	—	vern	ML-7
	0.500 x 30°	+/-0.010	500X30°	—	“	“
	R0.063	+/-0.010	R.063	—	Rad-gage	REF
	R0.500	+/-0.010	R.500	—	Rad-gage	REF
	4.438	+/-0.030	4.438	—	vern	ML-7
	104.91	+/-0.020	104.930	—	Tape	GA-12
	2.490	+0.005/-0.000	2.494	✓	Micro	GA-01
SIDE B	2.018	+0.005/-0.000	2.023	—	“	“
	2.079	+0.005/-0.000	2.084	✓	“	“
	2.145	+0.005/-0.000	2.150	✓	“	“
	2.209	+0.005/-0.000	2.214	✓	“	“
	2.287	+0.005/-0.000	2.290	✓	“	“
	2.363	+0.005/-0.000	2.363	✓	“	“
	2.433	+0.005/-0.000	2.437	✓	“	“
	0.200	+/-0.010	0.206	✓	vern	GA-01
	0.500 x 30°	+/-0.010	0.500X30°	✓	“	“
	R0.063	+/-0.010	R.063	✓	Rad gage	ref.
	R0.500	+/-0.010	R.500	✓	“	“
	4.438	+/-0.030	4.451	✓	vern	GA-01

Measured by:	<u>ML/H.A</u>	Audited by:	<u>G</u>	Preliminary Approval:	N/A
Date:	10/10/12	Date:	10/10/12	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.09.01	New Issue (P/O D206-667-203)	KJ/JLM	<u>ML</u>
B	10.08.25	Dwg Rev updated	KJ	<u>ML</u>

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Item	Qty	Part Number	Description
1	X	D206-667-243	CROSSTUBE ASSEMBLY (206L HIGH AFT)
2	1	D6004-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2892-1	SUPPORT
6	4	D3595-063-450	RUBBER CUSHION
7	4	MS21920-22	CLAMP
8	14	MS20601AD4W10	RIVET (OR NAS9302B-4-10)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6004-115
FINISHED LENGTH = 104.91±.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-243" AND BATCH NUMBER ON
INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 21.9 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY,
TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE
TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2892-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER
QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE
D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE
LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN
SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SIGN/COPY
 PRINTED
 EMAILED
 SUBJECT: D206-667-243
 WITH: DART
 WORK ORIG: 3
 NO. 62633
 BY 10/10/05

RELEASED
08/11/2005

C	REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-450 WAS D2858-400-773 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCES (ZN A-3, C5-3, D3-3); RELOCATED FLAG #6 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.		RF	08.11.06
B	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUDTUBES		PH	05.07.26
A	NEW ISSUE		CP	00.11.17
REV.	DESCRIPTION		BY	DATE
DESIGN	9	DART AEROSPACE LTD		
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA		
CHECKED	10	DRAWING NO.	REV. C	
MFG. APPR.	EP	D206-667-243	SHEET 1 OF 4	
APPROVED	EP	TITLE		SCALE
DE APPR.	EP	CROSSTUBE ASSY (206L HIGH AFT)		NTS
DATE	08.11.06	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE WHATSOEVER BY ANY PERSON OTHER THAN THE OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		

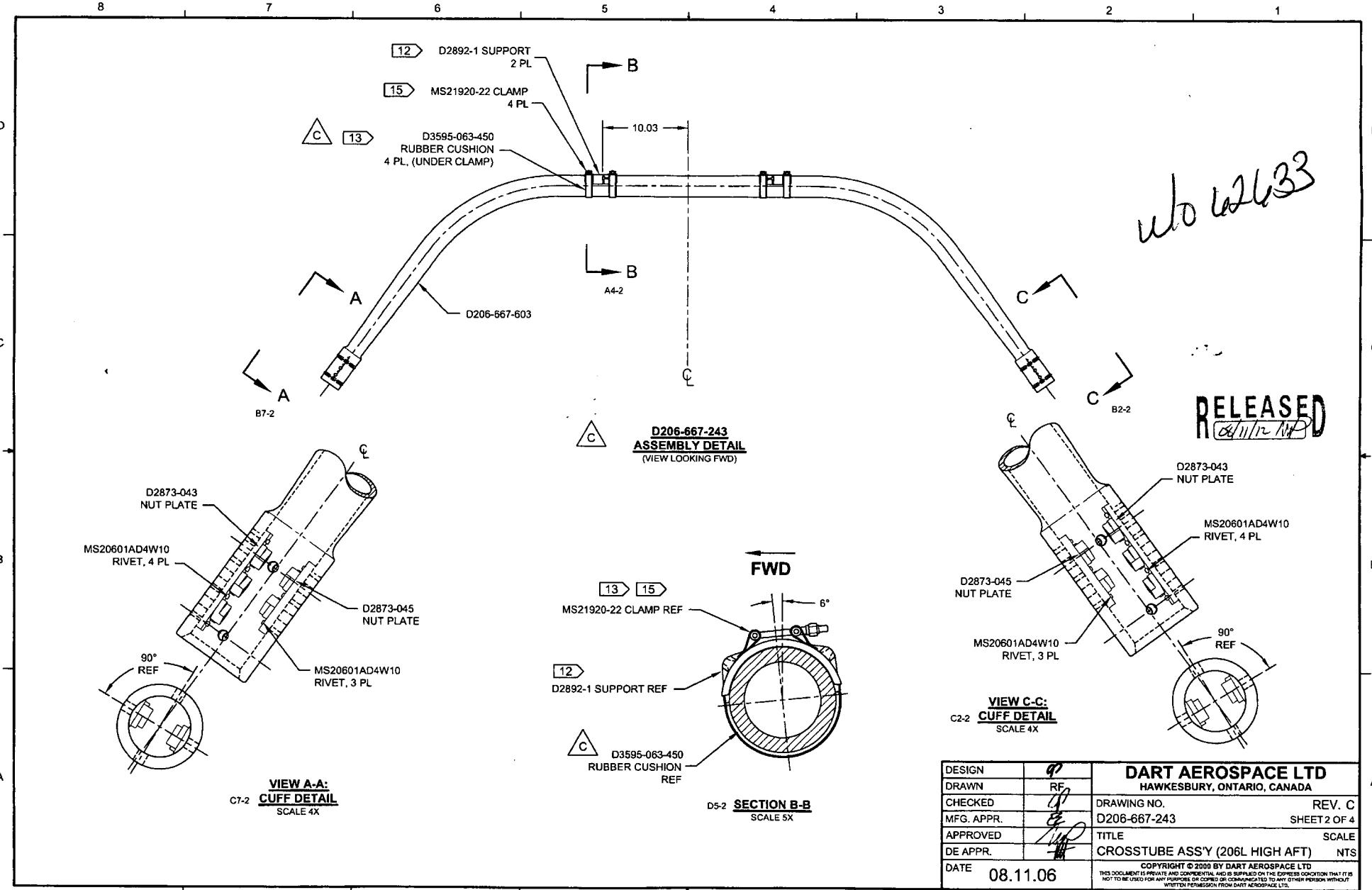
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DESIGN	<i>9</i>	DART AEROSPACE LTD		
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA		
CHECKED	<i>19</i>	DRAWING NO.	REV. C	
MFG. APPR.	<i>E</i>	D206-667-243	SHEET 2 OF 4	
APPROVED	<i>W</i>	TITLE	SCALE	
DE APPR.	<i>W</i>	CROSSTUBE ASS'Y (206L HIGH AFT)	NTS	
DATE	08.11.06			

W/O:		WORK ORDER CHANGES							
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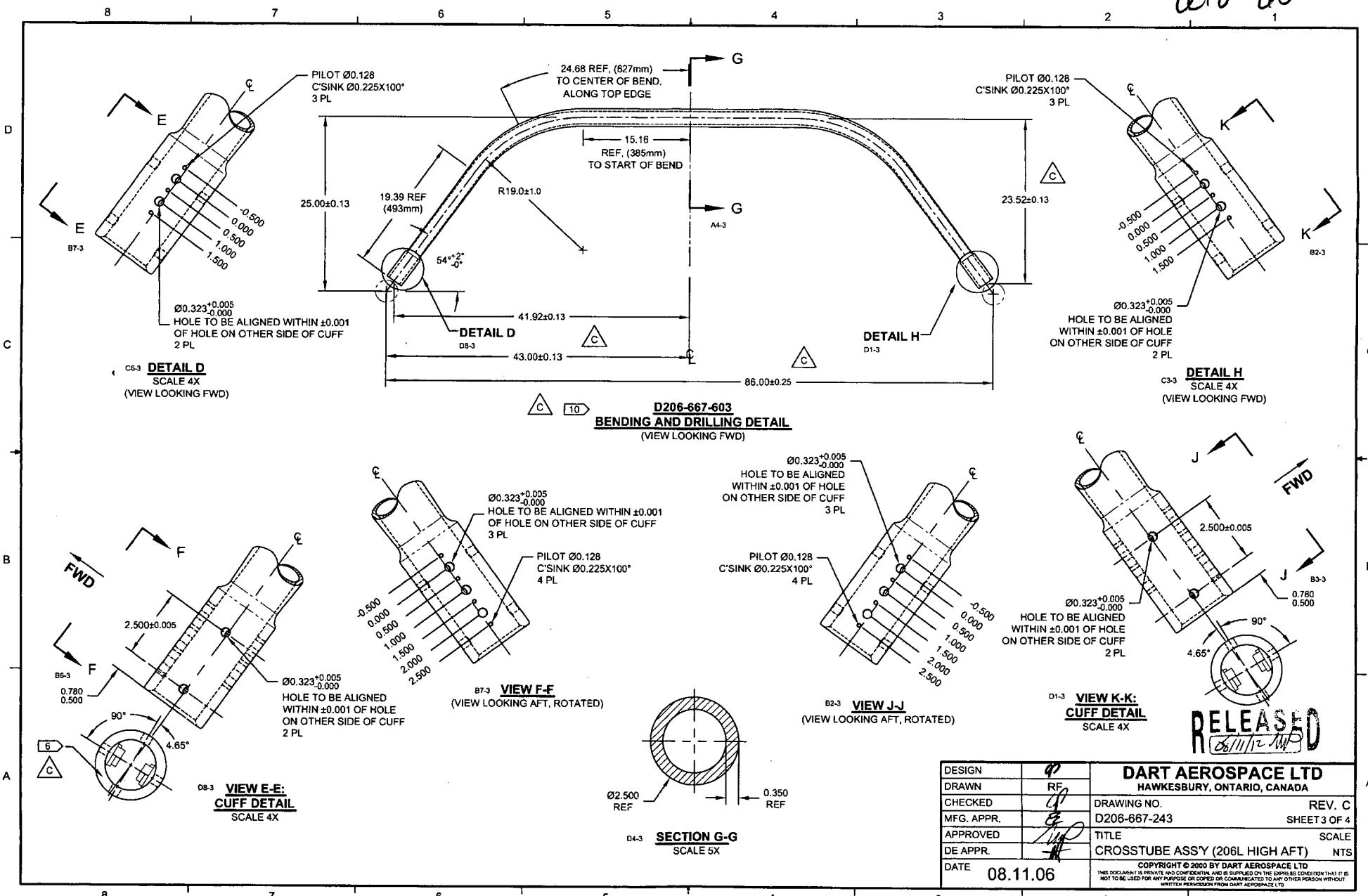
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abs 62683



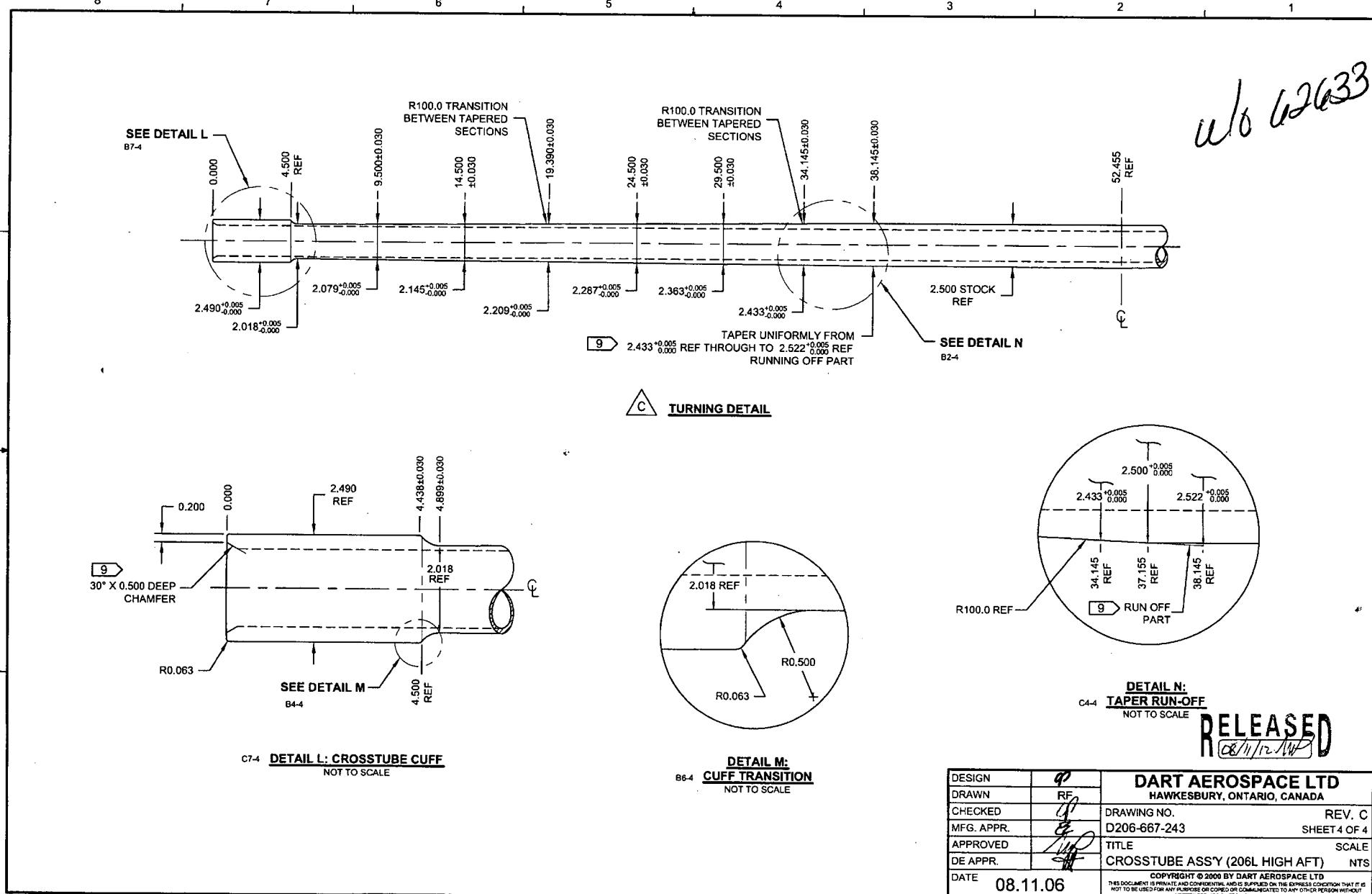
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DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	10	DRAWING NO. REV. C
MFG. APPR.	10	D206-667-243 SHEET 4 OF 4
APPROVED	10	TITLE SCALE
DE APPR.	10	CROSSTUBE ASSY (206L HIGH AFT) NTS
DATE	08.11.06	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THE CONSTRUCTION OF THE PART OR BY ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

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